AES SWISS SECTION NEWSLETTER

139th Issue

INFORMATION ON NEXT MEETING

SPATIAL AUDIO

Thursday, the 29th of June 2017, 17h00
At Hotel Ador, Laupenstrasse 15, Bern

SPEAKERS: Erich Meier - Amoenus Audio
Tom Ammermann - New Audio Technology

ORAGNISER: Terry Nelson

LANGUAGE: German or English

Summary

Spatial Audio, Immersive Audio, Binaural Audio et al…lots of terms abound these days but do they really tell us much?

A sector that is in expansion is the use of headphones for listening and this area will be covered by our two guest speakers.

Erich Meier/Amoenus Audio will explain the philosophy behind his binaural headphone system and how the listening experience is optimised for headphones to retain spatial information. The presentation will be followed by the possibility to listen to examples.

Tom Ammermann/New Audio Technology will explain his technology for the multichannel – or immersive – listening experience over headphones, with up to over 50 virtual tracks plus LFE. The technology has wide applications for music, films and gaming.

Programme

16:30	Doors open
17:00	Presentation by Erich Meier
18:00	Apéro
18:45	Presentation by Tom Ammermann
20:00	End of meeting
20:15	Optional dinner at the Tre Fratelli (next to Ador)

Please subscribe as usual at the web address: www.swissaes.org (under programme).

It is worth noted that the places for this meeting are limited to 20 persons. You are invited to book early to avoid disappointment. A headphone listening system will be installed for all attendees to listen simultaneously.

Guest speaker biographies

Tom Ammermann

Starting as a musician in the 80'th, Tom Ammermann became to be a music producer in the early 90'th for music, advertising and film. As a founder of the Luna Studio 1995 in Hamburg he raises the level of production quality and worked with many local musicians as well as projects.

2000 he began to work on surround productions for music and film projects as well as creates his first Headphone Surround mixes what became his brand.

2008 he started with the Blu-ray project 'forsenses' for Sony Music Entertainment with 3D audio productions.

2009 Tom Ammermann started to invent and develop new audio software products to create content for 3D / immersive audio entertainment. One is the Spatial Audio Designer who was used by Lucasfilm creating the Auro-3D mix for the first immersive audio movie 'Red Tails' in 2011.

2012 he founded the New Audio Technology where further products like the Spatial Sound Card and the Spatial Audio Game Engine (SAGE) was developed.

Currently Tom Ammermann is working on new technologies in spatial audio and do presentations on high-level audio conferences like AES conventions & conferences, Tonmeistertagung, SAE Alumnis and the International Conference on Spatial Audio (ICSA).

Some references: Stargate, Million Dollar Baby, Terminator 2, Mr. & Mrs. Smith, Traffic, Gangs of New York, I, Frankenstein, Expendables I-III and Kraftwerk 3D.

Erich Meier

Erich Meier is a radio and television engineer. He worked in the development of various companies (ascom, Bosch, Motorola) in the area of high frequency.

As a music lover and hobby guitarist, the interest in audio technology and the optimization of the playback systems was a constant companion in his live and led in 2012 to the founding of the company amoenus audio, based in Bern.

In 2017, amoenus audio released the ASM 6-3 SP, the first device with a unique sound optimizing technology for an authentic and pleasant reproduction of stereo music on speakers and headphones.

REPORT ON PREVIOUS MEETING

Audio-Automation for News: the SRF Approach

Thursday, the 27th of October 2016 - tpc, Zurich

SPEAKER: Alfio di Fazio, Bruno Keller

REPORTER: Gabriel Leuzinger

Around 20 members gathered on this Thursday evening at the premises of SRF (National Broadcaster for the German-speaking part of Switzerland), in Zurich.

Alfio di Fazio and Bruno Keller introduced the audience to one of the main targets of the project "News 2015": a reduction of the cost for the production of HD-News. The project has been successful as instead of 8 people being required for the "Classic" production of SD-News now only 3-4 production people are required for the HD-News. Next to the technical automation, new workflows and also two new professions have been created: a Multi-Technician (previously audio- and video-technician) and a so-called Realizer (previously graphics-technician, editor, director).
One of the major workflow preconditions for the automation of audio is to have it in the correct format, which means: audio on the correct tracks, loudness levels normalized according EBU R128, correct phase and good intelligibility. Pre-produced content needs to be completely finished before playout. This means that some of the workload involved has been shifted to a previous stage or to other departments.
Detailed pre-programming of a news-production is required. During the project, every manual step of the production experts has been analyzed and is now available in the system as a template. The production must be composed in advance with these templates and will then be controlled by the run-down-list in the MOSART-automation-system. This means that today, news-editors have to program all the work in advance that had previously been handled in real-time by audio professionals. This is not only true for audio, but also for camera-systems, light-systems, clip-servers, graphic-systems, video-mixer, video- and audio-routers and audio-contribution.
Few areas of the automation are left to fully automated audio-processes. One is the "ducking"-process of mixing the off-speakers with the main tracks. Another is gentle loudness-levelling of the line-output-signal, using a TC DB6.
The ISOSTEM algorithm is used for automated 3.0 (5.1) up-mixing, while keeping the downmix quality of the signal intact. A separate center channel allows individual control of the voice level to the audience and therefore improves intelligibility for hearing impaired listeners.
Alfio and Bruno pointed out some real-world-problems. Levels of remote-, telephone- or Skype-signals can vary up to 20 dB, they need to be equalized, or they need to be filtered to reduce wind and other noise. For special news-productions, there is still the requirement for a large manual-desk next to the small automation-desk used for the every-day-productions. And finally, there is a lot of education required.

The event concluded with a tour of one of the automated control rooms and to one of the automated studios. And as always, the discussions continued in a nearby restaurant. We would like to thank Alfio di Fazio, Bruno Keller and SRF/tpc for kindly supporting this interesting event.